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EXAMINER

LO, LINUS H

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 11/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/539,309

Applicant(s)

SHAU, JENG-JYE

Examiner

Linus H Lo

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 and 38-49 is/are rejected.
- 7) ☒ Claim(s) 34-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 26 is objected to because of the following informalities:

There are two claims that are presented as both claim 26 in the instant application.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1, 6, 7, 9, 14, 15, 25, 29, 30, 33, 38, 43, and 44 are rejected under 35

U.S.C. 102(e) as being anticipated by Lorenz et al. '020.

Considering claim 1, Lorenz et al. discloses a method and device for transmitting additional data in television channels. Lorenz et al. discloses the following limitations, note:

- a) the claimed step of examining a TV video signal, comprising electromagnetic waves distributed over time, for finding a time slot with a suitable EM wave transient rate which is met by the description at column 1, lines 17-20, column 2, lines 33-39, column 3, lines 8-49, and figure 3, whereas the passage from column 1 describes FBAS signal is transmitted in the RF, radio frequency signal that is inherently a form or electromagnetic wave; the excerpt from column 2 and 3 which teaches that the transmitter synchronization circuit 12 that determines from the FBAS signal (TV video signal) to locate the desired time intervals, figure 3, (suitable transient rate) to fit the information carrying additional data;
- b) the claimed step of generating a data-carrying TV signal by inserting into said TV signal a hidden-from-viewer data signal in said time slot having said suitable EM waves transient rate which is met by the description at column 3, lines 4-13, column 2, lines 29-39 and figure 1 and 3, whereas the passage from column 3 describes the additional data signal is superimposed on the FBAS signal (TV signal), and the column 2 describes that the additional data is being superimpose in all color and video signal-free intervals which is a time slot that hidden-from-viewer; and
- c) the claimed step of transmitting said data-carrying TV signal to a TV and a data receiver which is met by description of the abstract and column 4, lines 1-4, whereas the

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described implementation of the invention on the receiver side by additional devices ,i.e. additional data receiver, installed in the conventional TV which are considered as the claimed data receiver and TV , respectively.

Considering claim 6, the claimed step of inserting a modulated data signal with a compensated format(CF) into said time slot having said suitable EM wave transient rate which is met by the description at column 5, lines 31-35 and column 2, lines 33-39, column 3, lines 8-49, whereas the excerpt from column 2 and 3 which teaches that the transmitter synchronization circuit 12 that determines from the FBAS signal (TV video signal) to locate the desired time intervals, figure 3, (suitable transient rate) to fit the information carrying additional data, while the passage from column 5 teaches the additional data (modulated data) is transmitted using biphase signals that is considered as the compensated format.

Considering claim 7, the claimed step of inserting a compensated-amplitude (CA) modulated data signal into said time slot having said suitable EM wave transient rate which is met by the description at column 5, lines 31-35 and column 2, lines 33-39, column 3, lines 8-49 and Fig. 3 and 4 , whereas the excerpt from column 2 and 3 which teaches that the transmitter synchronization circuit 12 that determines from the FBAS signal (TV video signal) to locate the desired time intervals, figure 3, (suitable transient rate) to fit the information carrying additional data, while the passage from column 5 teaches the additional data (modulated data) is transmitted using biphase signals that is considered as the

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compensated format; and the Fig. 3 and 4 depicted the additional data is being superimposed onto the FBAS (video signal) in an amplitude modulation fashion for transmission.

Considering claim 9, the claimed step of inserting said data signal into said time slot employed for black level data transfer (BLDT) which is met by the description at column 3, lines 24-28, where the described location at the front porch which is considered as the for black level data transfer.

Considering claims 14, and 15, the claims recited the similar limitations of inserting a modulated signal with compensated-format or a compensated amplitude modulated data signal, which are recited in claims 6 and 7, respectively. Thus claims 14 and 15 are rejected for the same as applied to claims 6 and 7 above.

Considering claim 25, the claimed step (b) of generating a data-carrying TV signal by inserting into said TV signal a hidden-from-viewer data signal comprising a step of inserting said data signal into said time slot employed for blanking level data transfer (KLDT) which is met by the description at column 3, lines 24-28, where the described location at the bottom of the synchronization pulse that is considered as the blanking level data transfer.

Considering claims 29 and 30, the claims recited the similar limitations of inserting a modulated signal with compensated-format or a compensated amplitude

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modulated data signal, which are recited in claims 6 and 7, respectively. Thus claims 29 and 30 are rejected for the same as applied to claims 6 and 7 above.

Considering claim 33, Lorenz et al. discloses a method and device for transmitting additional data in television channels. Lorenz et al. discloses the following limitations, note:

- a) the claimed step of rearranging said TV signal into a non-viewer-interfering data-carrying TV signal which is met by the description at column 3, lines 4-13, column 2, lines 29-39 and figure 1 and 3, whereas the passage from column 3 describes additional data signal is superimposed on the FBAS signal (TV signal), and the column 2 describes that the additional data is being superimpose in all color and video signal-free intervals which is non-viewer-interfering; and
- b) the claimed step of transmitting said data-carrying TV signal to a TV and a data receiver which is met by description of the abstract and column 4, lines 1-4, whereas the described implementation of the invention on the receiver side by additional devices, i.e. additional data receiver, installed in the conventional TV which are considered as the claimed data receiver and TV, respectively.

Considering claim 38, the claimed step of arranging said TV according to an invisible frame data transfer (IFDT) method by determining a TV pixel signal in an invisible frame and employing said TV pixel signal for transmitting a data signal which is met by the met by the description at column at column 3, lines 8-28 and Fig. 3, whereas the

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description of inserting the data signal at the bottom of the synchronization pulse which is considered as arranging TV signal according IFDT method.

Considering claims 43 and 44, the claims recited the similar limitations of inserting a modulated signal with compensated-format or a compensated amplitude modulated data signal, which are recited in claims 6 and 7, respectively. Thus claims 43 and 44 are rejected for the same as applied to claims 6 and 7 above.

4. Claims 46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Kidrin '555.

Considering claim 46, Kidrin discloses an interactive television and video game system. Kidrin discloses the claimed TV signal interface/decoding means for receiving a TV signal encoded with a video-game data-signal therein for decoding and employing said data signal which is met by the sync and VBI decoded unit 14 (Fig. 1, and column 4, lines 2-13).

Considering claim 47, the claimed TV interface means for receiving said TV signal encoded with data-signal from a TV which is met by the separator 21 (Fig. 2 and column 4, lines 48-54).

Considering claim 48, the claimed video game controller for allowing a video game player to control and play a video game on said video game system which is met by the video game system 12 (Fig. 1, and column 4, lines 61-68, and column 6, lines 42-54), whereas the described hand controller is utilized to interact with the video game system.



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5. Claim 49 is rejected under 35 U.S.C. 102(e) as being anticipated by Borseth '997 .

Considering claim 49, the claimed TV signal interface/decoding means for receiving a TV signal encoded with a data-signal comprising stock price data which is met by the VBI component 172 of the video decoder filter 116 ( Fig. 4 , and column 9, lines 29-47), in where the passage describes quotes is transmitted in the form of VBI data.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-5, 10-13, 26-28, and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of Broughton et al. '031.

Considering claims 2-5, Lorenz et al. disclose the claimed invention except the step (b) of generating comprising the claimed step of inserting frequency modulated (FM) data, multiple frequency-modulated (MF) data , phase-modulated (PM) data, multiple-phase modulated (MP) data , as in claims 2-5, respectively, into said time slot having suitable EM wave transient rate.

Nevertheless, Lorenz et al. teaches a step of generating a data-carrying TV signal by inserting into the TV signal a hidden-from-view data signal as discuss above in point (b).

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Broughton et al. discloses an method and apparatus for in-band video broadcasting with control data are encoded by modulating. Furthermore Broughton et al. discloses at column 3, lines 11-20, whereas the modulation can be carried out by modulating one or more (multiple) subcarrier with data that conveys information in a variety of ways includes phase modulation, frequency modulation.

It is noted that at column 3, lines 3-11 that Broughton et al. discloses such modulation would have the advantage of ensuring the integrity of the data communication and limiting the cost to user and the signal-to-noise ratio.

Therefore the examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of various modulating scheme from Broughton et al. in the system of Lorenz et al. in order to achieve the stated advantages.

Considering claims 10-13, Lorenz et al. disclose the claimed invention except for the step (b) of generating comprising the claimed step of inserting frequency modulated (FM) data, multiple frequency-modulated (MF) data, phase-modulated (PM) data, multiple-phase modulated (MP) data, as in claims 10-13, respectively, into said time slot employed for BLDT.

Nevertheless, Lorenz et al. teaches the step of inserting said data signal into said time slot employed for black level data transfer which as discussed at claim 9 above.

Broughton et al. discloses an method and apparatus for in-band video broadcasting with control data are encoded by modulating. Furthermore Broughton et al. discloses at column 3, lines 11-20, whereas the modulation can be carried out by modulating one or more (multiple)

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subcarrier with data that conveys information in a variety of ways includes phase modulation, frequency modulation.

It is noted that at column 3, lines 3-11 of Broughton et al. discloses such modulation would have the advantage of ensuring the integrity of the data communication and limiting the cost to user and the signal-to-noise ratio.

Therefore the examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of various modulating scheme from Broughton et al. in the system of Lorenz et al. in order to achieve the stated advantages.

Considering claims 26-28, Lorenz et al. disclose the claimed invention except the step (b) of generating comprising the claimed step of inserting frequency modulated (FM) data, multiple frequency-modulated (MF) data, phase-modulated (PM) data, multiple-phase modulated (MP) data, as in claims 26-28, respectively, into said time slot employed for blank level data transfer (KLDT).

Nevertheless, Lorenz et al. teaches the step of inserting said data signal into said time slot employed for black level data transfer which as discussed at claim 25 above.

Broughton et al. discloses an method and apparatus for in-band video broadcasting with control data are encoded by modulating. Furthermore Broughton et al. discloses at column 3, lines 11-20, whereas the modulation can be carried out by modulating one or more (multiple) subcarrier with data that conveys information in a variety of ways includes phase modulation, frequency modulation.

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It is noted that at column 3, lines 3-11 that Broughton et al. discloses such modulation would have the advantage of ensuring the integrity of the data communication and limiting the cost to user and the signal-to-noise ratio.

Therefore the examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of various modulating scheme from Broughton et al. in the system of Lorenz et al. in order to achieve the stated advantages.

Considering claims 39-42, Lorenz et al. disclose the claimed invention except the step (a) of employing comprising the claimed step of transmitting a modulated (FM) data, multiple frequency-modulated (MF) data, phase-modulated (PM) data, multiple-phase modulated (MP) data, as in claims 39-42, respectively.

Nevertheless, Lorenz et al. teaches a step of employing the TV pixel signal in the invisible frame for transmitting a data signal which as discussed in point (a) of claim 33.

Broughton et al. discloses an method and apparatus for in-band video broadcasting with control data are encoded by modulating. Furthermore Broughton et al. discloses at column 3, lines 11-20, whereas the modulation can be carried out by modulating one or more (multiple) subcarrier with data that conveys information in a variety of ways includes phase modulation, frequency modulation.

It is noted that at column 3, lines 3-11 that Broughton et al. discloses such modulation would have the advantage of ensuring the integrity of the data communication and limiting the cost to user and the signal-to-noise ratio.

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Therefore the examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of various modulating scheme from Broughton et al. in the system of Lorenz et al. in order to achieve the stated advantages.

8. Claims 8, 16, 31, and 45 rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of Adams et al. '461.

Considering claim 8, Lorenz et al. discloses the claimed invention except for the claimed step of inserting a differential amplitude (DA) modulated data signal into said time slot having said suitable EM wave transient rate.

Nevertheless, Lorenz et al. teaches a step of generating a data-carrying TV signal by inserting into the TV signal a hidden-from-view data signal as discuss above in point (b).

Nonetheless, Adam et al. discloses a method of and apparatus for transmitting and receiving coded digital signals. Adams et al. discloses the claimed step of inserting a differential amplitude modulated data which is met by the description at column 7, lines 27-35.

It is noted that the differential amplitude modulation renders the integrity of data transmission as a superimposed information to the broadcast television.

Therefore it is submitted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of Adams et al. in the system of Lorenz et al. for the intended advantage.

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Considering claim 16 , Lorenz et al. discloses the claimed invention except for the claimed step of inserting a differential amplitude (DA) modulated data signal into said time slot employed for BLDT .

Nevertheless, Lorenz et al. teaches the step of inserting said data signal into said time slot employed for black level data transfer which as discussed at claim 9 above.

Nonetheless, Adam et al. discloses a method of and apparatus for transmitting and receiving coded digital signals. Adams et al. discloses the claimed step of inserting a differential amplitude modulated data which is met by the description at column 7, lines 27-35.

It is noted that the differential amplitude modulation renders the integrity of data transmission as a superimposed information to the broadcast television .

Therefore it is submitted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of Adams et al. in the system of Lorenz et al. for the intended advantage.

Considering claim 31 , Lorenz et al. discloses the claimed invention except for the claimed step of inserting a differential amplitude (DA) modulated data signal into said time slot employed for KLDT .

Nevertheless, Lorenz et al. teaches the step of inserting said data signal into said time slot employed for black level data transfer which as discussed at claim 25 above.

Nonetheless, Adam et al. discloses a method of and apparatus for transmitting and receiving coded digital signals. Adams et al. discloses the claimed step of inserting a differential amplitude modulated data which is met by the description at column 7, lines 27-35.

It is noted that the differential amplitude modulation renders the integrity of data transmission as a superimposed information to the broadcast television .

Therefore it is submitted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of Adams et al. in the system of Lorenz et al. for the intended advantage.

Considering claim 45 , Lorenz et al. discloses the claimed invention except for the claimed step of transmitting a differential amplitude (DA) modulated data signal.

Nevertheless, Lorenz et al. teaches the step of employing said TV pixel signal in said invisible frame for transmitting a data signal which as discussed at claim 38 above.

Nonetheless, Adam et al. discloses a method of and apparatus for transmitting and receiving coded digital signals. Adams et al. discloses the claimed step of inserting a differential amplitude modulated data which is met by the description at column 7, lines 27-35.

It is noted that the differential amplitude modulation renders the integrity of data transmission as a superimposed information to the broadcast television .

Therefore it is submitted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of Adams et al. in the system of Lorenz et al. for the intended advantage.

9. Claims 17 , 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. in view of Stetten et al. ' 780.

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Considering claim 17, Lorenz et al. disclose the claimed invention except the claimed step of inserting said data signal into said time slot employed for white level data transfer (WLDT).

Nonetheless, Stetten discloses a video display system the step of inserting said data signal into said time slot employed for white level data transfer which is met by the description at column 6, lines 39-52.

Stetten further teaches that such teaching having the benefit of sending the data code at any fixed or specified bit rate during any portion of the TV frame or sent on a different carrier as describe at column 11, lines 29-38.

Therefore the examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the inserting step as taught by Stetten in the system of Lorenz et al. accordingly for the stated advantage .

Considering claim 22, the claimed step of inserting a modulated data signal with a compensated format(CF) into said time slot employed for WLDT which is met by the description of Lorenz et al. at column 5, lines 31-35 and column 2, lines 33-39, column 3, lines 8-49, whereas the excerpt from column 2 and 3 which teaches that the transmitter synchronization circuit 12 that determines from the FBAS signal (TV video signal) to locate the desired time intervals, figure 3, (suitable transient rate) to fit the information carrying additional data, while the passage from column 5 teaches the additional data (modulated data) is transmitted using biphas signals that is considered as the compensated format.



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Considering claim 23, the claimed step of inserting a compensated-amplitude (CA) modulated data signal into said time slot employed for WLDT which is met by the description at column 5, lines 31-35 and column 2, lines 33-39, column 3, lines 8-49 and Fig. 3 and 4, whereas the excerpt from column 2 and 3 which teaches that the transmitter synchronization circuit 12 that determines from the FBAS signal (TV video signal) to locate the desired time intervals, figure 3, (suitable transient rate) to fit the information carrying additional data, while the passage from column 5 teaches the additional data (modulated data) is transmitted using biphasic signals that is considered as the compensated format; and the Fig. 3 and 4 depicted the additional data is being superimposed onto the FBAS (video signal) in an amplitude modulation fashion for transmission.

10. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. and Stetten et al. '780 as applied to claim 17 above, and further in view of Broughton et al. '031.

Considering claims 18-21, Lorenz et al. discloses the claimed invention except the step of inserting said data signal into said time slots employed for white level data transfer comprising the claimed step of inserting frequency modulated (FM) data, multiple frequency-modulated (MF) data, phase-modulated (PM) data, multiple-phase modulated (MP) data, as in claims 18-21, respectively, into said time slot employed for WLDT.

Nevertheless, Lorenz et al. teaches a step of generating a data-carrying TV signal by inserting into the TV signal a hidden-from-view data signal as discussed above in point (b).

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Broughton et al. discloses an method and apparatus for in-band video broadcasting with control data are encoded by modulating. Furthermore Broughton et al. discloses at column 3, lines 11-20, whereas the modulation can be carried out by modulating one or more (multiple) subcarrier with data that conveys information in a variety of ways includes phase modulation, frequency modulation.

It is noted that at column 3, lines 3-11 that Broughton et al. discloses such modulation would have the advantage of ensuring the integrity of the data communication and limiting the cost to user and the signal-to-noise ratio.

Therefore the examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of various modulating scheme from Broughton et al. in the system of Lorenz et al. and Stetten et al. in order to achieve the stated advantages.

11. Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. and Stetten et al. as applied to claim 17 above, and further in view of Adams et al. '461.

Considering claim 24, the system of Lorenz et al. and Stetten et al. discloses the claimed invention except for the claimed step of inserting a differential amplitude (DA) modulated data signal into said time slot employed for WLDT.

Nevertheless, Lorenz et al. teaches a step of generating a data-carrying TV signal by inserting into the TV signal a hidden-from-view data signal as discuss above in point (b).

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Nonetheless, Adam et al. discloses a method of and apparatus for transmitting and receiving coded digital signals. Adams et al. discloses the claimed step of inserting a differential amplitude modulated data which is met by the description at column 7, lines 27-35.

It is noted that the differential amplitude modulation renders the integrity of data transmission as a superimposed information to the broadcast television.

Therefore it is submitted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to facilitate the teaching of Adams et al. in the system of Lorenz et al. and Stetten et al. for the intended advantage.

12. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz et al. '020 in view of Klappert et al. '785.

Considering claim 32, Lorenz et al. discloses the claimed invention except for step (c) of transmitting further comprising a step of storing a data transmitted by said data-carrying TV signal in a user-accessible data-storage in said data receiver.

Nonetheless, Klappert et al. discloses the claimed step of storing a data transmitted by data-carrying TV signal in a user-accessible data-storage which is met by the dynamic RAM 408 (column 8, line 59-column 9, line5).

The examiner submits that it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the Lorenz et al. system of using the step of storing transmitted data by the data-carrying TV signal as taught by Klappert et al. in order to render the additional data for being retrievable by the viewer.

*Allowable Subject Matter*

13. Claims 34-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

Prior art does not teach or obviously suggest a data transfer method that comprising the claimed step rearranging TV signal in to a non-viewer-interfering data-carrying TV signal that further comprises the claimed step of arranging the TV signal according to a color table data transfer method , or according to a predefined object data transfer method , or according to a small object data transfer method , or according to a dedicated object data transfer method which as recited in claims 34-47, respectively.

It is noted the Lorenz et al. disclose the step of rearranging the TV signal into a non-viewer-interfering data-carrying TV by modulating the additional data onto the broadcasted TV (FBAS)signal. However, Lorenz et al. does not teaches to rearrange or modulate the TV signal with a specific accordance with the color table data transfer criteria or any object based data transfer criteria as recited claims 34-47.

*Conclusion*

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reime discloses a video recording unit featuring switching logic means for generating phase shifting matrix groups.

Lu et al. discloses a video and data co-channel communication system.

Broughton et al. discloses an interactive video method and apparatus.

Horlander discloses a system and data format for communicating data between a video decoder and peripheral device.

Lee discloses a data slice circuit for slicing data carried on a video signal and a method.

Tsukagoshi discloses a video subtitle processing system.

Legate discloses a video facility management system for encoding and decoding video signals to facilitate identification of the video signals.

McFarland et al. discloses a method and apparatus for inserting digital data in a blanking interval of an RF modulated video signal.

Ives et al. discloses a multi-channel modulated number frequency synthesizer.

Karlock discloses a method and apparatus for modifying a video signal.

Iggulden discloses a method and apparatus for automatically identifying and selectively altering segments of a television broadcast signal in real-time.

Zink et al. discloses a transparent embedment of data in a video signal.

Small discloses a method and apparatus for nesting secondary signal within a television signal.

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Dougherty et al. discloses a co-channel transmission of program signal and ancillary signals.

Brown discloses a hybrid electricity and telecommunications distribution network.

Chennakeshu et al. discloses a satellite communication system for local-area coverage.

Wiedeman discloses a two-system protocol conversion transceiver repeater.

Dolan discloses an apparatus and method for compensating for limiter induced non-linear distortion in a wireless data communication system.

Megeid discloses a data transmission using color burst position modulation.

Gumm et al. discloses a CATV sweep system using a gated receiver.

Gutsmann et al. discloses a digital encoding method and apparatus for replacing part of the data signal with synthetically generated amplitude values.

Ritchter discloses a television system for recovering digital data encoded in a television signal.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linus H. Lo whose telephone number is (703) 305-4039.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller, can be reached at (703) 305-4795.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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**or faxed to:**

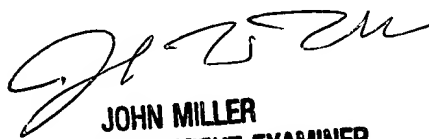
**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

lhl *ll*

November 13, 2002

  
**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**